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10/574,582	04/04/2006	Toshiya Hamada	284463US6PCT	9315

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EXAMINER	
HARVEY, DAVID E	
ART UNIT	PAPER NUMBER
2481	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/574,582	HAMADA ET AL.	
	Examiner	Art Unit	
	DAVID E. HARVEY	2481	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9,14-17 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-9,14-17 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama (already of record).

I. The showing of Yeh et al:

As shown in Figure 4 and 11, Yeh et al. discloses an image synthesizing system which includes:

1) A first image plane memory (e.g., @ 401 of Figure 4) for storing a flow through background video signal;

2) A second plane memory (e.g., @ 403 of Figure 4) for storing a scaled video signal;

3) A selection means (@ 1131 of Figure 11) for combining the video signals, pixel-by-pixel[1], from the first and second plane memories;

4) A third plane memory (@ 405 of Figure 4) for storing graphics information content;

5) A fourth plane memory (@ 407 of Figure 4) for storing interactive graphics information content;

6) A first blending unit (@ 1141 of Figure 11) which, as illustrated an described, is implemented as an additive α-mixer; and

7) A second blending unit (@ 1151 of Figure 11) which, as illustrated and described, is implemented as an additive α-mixer.

II. Differences:

Claim 1 differs from the showing of Yeh et al only in that:

1) Yeh et al does not disclose details of the circuitry required to supply the various types of images to the image plane memories (@ 401, 403, 405, 407) of Figure 4 (i.e. does not disclose the circuitry required for scaling the scaled video signal & does not disclose the signals as being provided from a recording medium); and

2) Yeh et al does not disclose details of the structure required to implement the first blender (@ 1141) of Figure 11 (e.g., as

[1] The inherent difference between a selector (non-additive mixer) and a blender (additive mixer).

comprising multipliers for modifying the opacity of the signals being combined).

III. The showing of Miyamoto et al, Nakayama, and Hung:

A) As is shown in Figure 11, Miyamoto et al discloses an image synthesizing system similar to that described by Yeh et al. To the point, Miyamoto et al describes a system that includes:

1) A first plane memory (@ 1109);

2) A second plane memory (@ 1110);

3) A selection means (@ 1111, 1104);

4) A scaling/reducing unit (e.g., @ 1102);

5) A third plane memory (@ 1113);

6) A fourth plane memory (@ 1112);

7) A first blending unit (@ 1105; 1106); and

8) A second blending unit (@ 1107 and 1108).

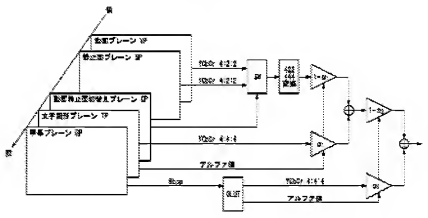
Regardless, Miyamoto et al is relied on for its showing of the signal providing circuitry (e.g., elements 105,1101, 1102, 1103, 109, 110 of Figure 11) required to provide the various signals to the image planes (@ 107 of Figure 11) in such synthesizing system and, in particular, that such circuitry:

1) Was known to have received the signals that were to be displayed from AV stream receiving and decoding circuitry (e.g., via elements 104 and 105 of Figure 1); and

2) Was known to have included scaling/reducing unit (@ 1102 of Figure 11) for producing the scaled video signal.

B) As shown in Figure 1 (reproduced below), Nakayama illustrates conventional image synthesizing circuitry that is analogous to that shown in the applied prior art discussed above; i.e., Yeh et al. and Miyamoto et al.

【図１】



Nakayama has been cited because for its "alternative", if not simply more detailed, showing of the circuit configuration used for blending and combining the data of the character/graphics planes (@ CP, GP) with the selected data, i.e., selected pixel-by-pixel (@ "SW"), of the respective image planes (@ VP, SP). As illustrated, the blending/combining circuitry includes respective sets of α blending units [i.e., @ α1 & (1- α1) and @ α2 & (1- α2)] for adjusting the opacity of the data being combined/blended followed by respective adding units.

C) Hung is cited because it evidences that with respect to such synthesis systems, e.g., that described by Miyamoto et al, the AV decoder was known to have received the AV stream from any of various known alternative sources - including a recording media (SEE Figure 3)

IV. Obviousness:

A) It would have been obvious to one of ordinary skill in the art to have modified the system disclosed by Yeh et al in accordance with the teaching of Miyamoto et al whereby the providing circuitry of Miyamoto et al (e.g., elements 105, 1101, 1102, 1103, 109, 110 in Figure 11) is utilized to decode an AV stream and provide the appropriately decoded/scaled components to the respective plane memories (@ 401, 403, 405, 407 of Figure 4) the Yeh et al system for synthesis by the synthesizing circuitry of Figure 11. The examiner maintains that Miyamoto et al simply represents the "prior art" on which Yeh et al relied for such details given that that Yeh et al does not specify the circuitry that was required to provide such signals (i.e., the motivation for the modification);

And, while the AV stream in Miyamoto et al was provided via a broadcast, Figure 3 of Hung evidences that a recording medium (@ 308) was a

known and obvious alternative source of the AV stream in the modified system.

B) Yeh et al does not disclose the structure required to implement the α-"blenders" of the modified system (e.g., @ 1141 and 1151 of Figure 11 Yeh et al). However, the examiner contends that the circuit structure required to implement such α-"blenders" was notoriously well known in the video mixing arts as evidenced via Figure 1 of Nakayama in the "same" environment. As such, the examiner maintains that it would been obvious to have implemented the blenders in the modified system of Yeh et al using the conventional configuration shown in Figure 1 of Nakayama given that the Nakayama at least represents an "alternative" configuration of said circuitry; e.g., it was obvious to substitute one embodiment for the other.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama for the same reasons that were set forth above with respect to claim 1.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 4, further in view of US Patent #6,661,426 to Jetha et al. Additionally:

1) It is noted that, in Figure 4, Yeh et al indicates that the background video plane (@ 401) can contain video representing a "Fixed Pattern". The examiner maintains that such a video is, by definition, a "wallpaper picture".

2) Alternatively, Jetha et al has been cited because it evidences that it was known, in the video image compositing arts, to have provided and utilized "wallpaper picture data" as a background image for the combined image signals [e.g., note lines 10-14 of column 4]. In light this showing, it would have been obvious to one of ordinary skill in the art to have provided such a wallpaper picture signal to the background plane (@ 401 in Figure 4 of Yeh et al) in the modified system of Yeh et al.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 1. Additionally:

A) The examiner maintains that it was well known, and would have been obvious, for one of the graphics planes in the modified system of Yeh et al to have comprised or included subtitle information (e.g., Note: lines 32-35 of Miyamoto et al; and elements 316 and 318 in Figure 3 of Hung); and

B) The examiner maintains that the mixing ratios are necessarily "based on" the data that is mixed in at least the mixing ratio is necessarily set to mix the signals according to image position and/or image priority .

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 6.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 1. Additionally:

Claim 9 further differs from the modified system of Yeh et al in that claim 9 requires an additional frame/plane memory to be located at the output of the selection means.

The examiner takes Official Notice that it was well known in the video compositing art to have associated an additional frame/plane memory with the display device to compensate for differences in the refresh rate of the sources and the display rate of the display device. In light this conventional knowledge, it would have been obvious to one of ordinary skill in the art to have associated such a frame/plane memory with the display in the modified systems of Yeh et al. to compensate for differences in display and refresh rates.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 1. Additionally:

The examiner maintains that the mixing ratios are necessarily "based on" the data that is mixed in at least the mixing ratio is necessarily set to mix the signals according to image position and/or image priority

The examiner notes that the priority information determines "transparency". Thus, any time/position at which one images (e.g., the reduced images) are displayed over/through another image inherently requires the non-displayed image to be transparent at that location.

8. **Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 14, further in view of US Patent #6,661,426 to Jetha et al. Additionally:**

It is noted that, in Figure 4, Yeh et al indicates that the background video plane (@ 401) can contain video representing a "Fixed Pattern". The examiner maintains that such a video is, by definition, a "wallpaper picture".

Jetha et al has been cited because it evidences that it was known, in the video image compositing arts, to have provided and utilized "wallpaper picture data" as a background image for the combined image signals [e.g., note lines 10-14 of column 4]. In light this showing, it would have been obvious to one of ordinary skill in the art to have provided a wallpaper picture signal to one of the frame stores in the modified system of Yeh et al as background image data for the combined image; i.e., again the examiner notes that the priority information determines "transparency" and, as such, any time/position at which one images (e.g., the wallpaper image) is displayed over/through another image such inherently requires the non-displayed image to be transparent at that position/location. When the wallpaper image it not displayed over/through another image, it is display at "other" areas,

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 1.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #7,623,140 to Yeh et al. in view of US Patent #7,496,278 to Miyamoto et al, US Patent #7,676,142 to Hung, and Japanese Patent Document #2003-259213 to Nakayama, for the same reasons that were set forth above with respect to claim 1, in further in view of the 1984 publication "Structured Computer Organization" by Tanenbaum.

Tanenbaum has been cited as evidencing the fact that those of ordinary skill in the art have long recognized hardware and software implementations of a given processing operation to be obvious and equivalent [note lines 10-13 of page 11]. In light of this showing, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implanted the modified system of Yeh et al. using a software driven processor (i.e., wherein the software must necessary be stored via some type of processor readable medium).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Peter-Anthony Pappas, can be reached on (571) 272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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